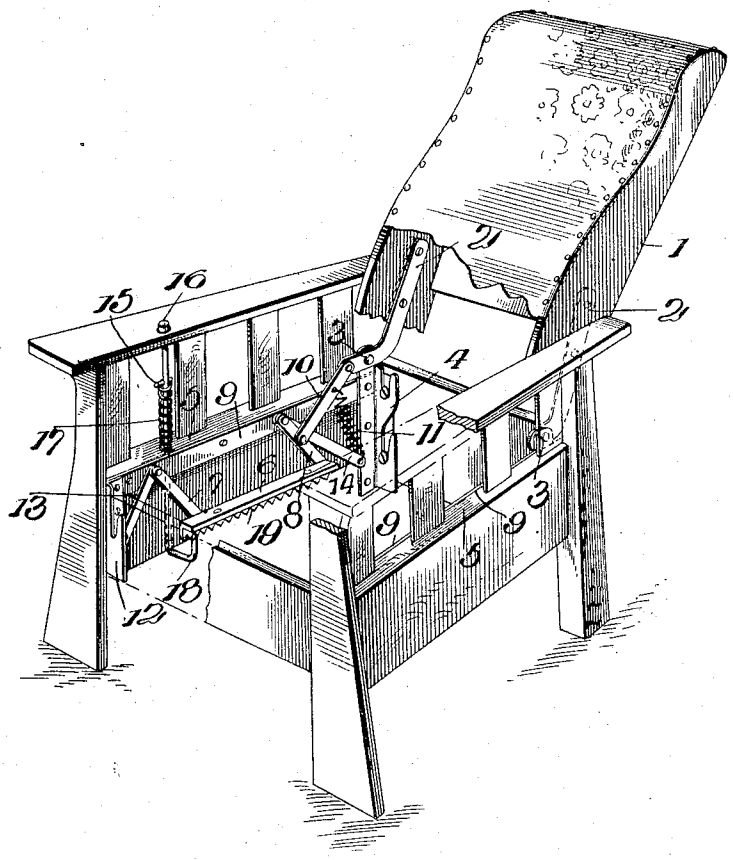
C. J. KINDEL.

RECLINING CHAIR.

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1,204,785.

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RECLINING-CHAIR.

1,204,785. Specification of Letters Patent. Patented Nov. 14, 1916.

Application filed May 29, 1915. Serial No. 31,113.

To all whom it may concern:

Be it known that I, CHARLES J. KINDEL, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Reclining-Chairs, of which the following is a specification.

This invention contemplates the construction of a reclining chair which shall have a relative and synchronous movement between seat and back such that will not tend to disarrange the clothing of the occupant while tilting the back of the chair as is usually experienced in the manipulation of reclining chairs wherein the bottom has no compensating movement during the tilting of the back.

The invention therefore consists in the structure of parts and in their combination for the purpose specified substantially as hereinafter set forth and claimed.

The invention is illustrated in the accompanying drawing which is a perspective view of the improved chair with parts broken away to show the hidden mechanism.

The frame of the chair may be of any desired form and structure and the back 1 may be hinged to the frame in any suitable way but is preferably hinged by means of irons 2 attached to the sides of the back and pivoted at 3 to plates 4 secured to the side of the chair frame 5.

The seat of the chair (not shown) is mounted upon angle-irons 6, one at each side of the frame 5. These angle-irons 6 are pivotally suspended on parallel links 7 and 8 pivoted at their upper ends to metal strips 9 extending along the interior of the sides of the frame. The rear links 8 are connected to extensions of arms 2 by links 10 pivoted at the ends to said extensions and links. Springs 11 may be connected near the upper ends of links 10 and to the plates 4 for returning the back to normal upright position and the seat to its normal forward position. The plates 4 may serve as union plates between the sides and ends of the frame 5 and similar union plates 12 may be located at the forward ends of said sides, braces 13 and 14 being riveted to said union plates and to the strips 9 which are also riveted to said union plates. Thus all the metal parts mounted on the sides of the chair frame may be riveted and pivoted together initially and then, all together, screwed to place in the chair.

Upon tilting the back of the chair to the rear the seat also moves rearward or in the same direction by virtue of its connection to the back through links 10. So also the return movement of the back will cause the seat to move forward. By properly proportioning the springs 11 to the ponderability of the moving parts of the chair the seat and back will retain the desired tilted positions without any stop or locking mechanism. However, if desired, any suitable stop mechanism may be employed in connection with the back or the seat. A suitable mechanism for this purpose is typified in the drawing and consists of a rod 15 mounted in the side of the chair frame to act on the push-button plan, such button being indicated at 16. A spring resisting pressure on the button is indicated at 17. The lower end of rod 15 is recurved and formed into a dog 18 for engagement with notches 19 that may be formed in the lower edge of the angle-iron 6.

By pressing the button the seat and back are released and may be moved as desired by the occupant of the chair leaning against the back or pushing the seat back. The reverse action will assist the spring 11 to elevate the back and move the seat forward. On removing pressure from the button the dog 18 enters one of the notches 19 and the parts of the chair remain in adjusted position.

The invention claimed is,—

1. In a reclining chair, the combination with a tilting back, of an oscillating seat, a connection between the back and seat whereby the seat moves backward when the back is tilted backward and vice versa, and means for locking the parts in their relatively adjusted positions.

2. In a reclining chair, the combination with a tilting back, of an oscillating seat, and a connection between the back and seat whereby the seat moves backward when the back is tilted backward and vice versa.

3. In a reclining chair, the combination with a tilting back, of an oscillating seat, a connection between the back and seat whereby the seat moves backward when the back is tilted backward and vice versa, means for locking the back and seat in their relatively adjusted positions, and springs for counter-

acting the backward movements of the back and seat.

4. In a reclining chair, the combination with a tilting back, of an oscillating seat, a connection between the back and seat whereby the seat moves backward when the back is tilted backward and vice versa, and springs counteracting the backward movement of said parts.

5. In a reclining chair, the combination with a tilting back, of a seat, parallel links attached to the chair-frame for supporting the seat, and connections between the said links and the chair back whereby a rearward tilting of the back causes the seat to move backward.

6. In a reclining chair, the combination with a tilting back, of a seat, parallel links attached to the chair-frame for supporting the seat, and links connecting said parallel links to the lower end of said back for the purpose set forth.

7. In a reclining chair the combination with a tilting back, of a seat, suspended parallel links in the frame of the chair and supporting the seat, links connecting said parallel links to the lower end of said back below its pivots, springs counteracting the backward movement of said parts, and stop mechanism for controlling the position of seat and back.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES J. KINDEL.

Witnesses:
MARY S. TOOKER,
CORA B. FOX.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."